NATIONAL MARINE FISHERIES SERVICE

UNITED STATES DEPARTMENT OF COMMERCE

2000 PROGRESS REPORT TO THE NATIONAL MARINE FISHERIES SERVICE IN PARTIAL FULFILLMENT TO GRANT # NA96FE0306 FOR THE MEXICO / UNITED STATES OF AMERICA POPULATION RESTORATION PROJECT FOR THE KEMP´S RIDLEY SEA TURTLE

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Presented by:
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INTRODUCTION

Over the last twenty-one years, the Mexican and U.S. biologists working with the Kemp's ridley sea turtle have learned a lot about the biology of nesting sea turtles. When the project began, it basically was at ground zero. We now know that although some turtles nest in subsequent seasons, the majority of them nest every other year. We know that each female nests on average from 2.6 to three times per female per season, laying a clutch of one hundred or so eggs which require from forty-two to sixty-two days incubation depending on the temperatures.

We have now verified turtles which were originally tagged on the Eastern seaboard of the U.S. as having returned to Mexico to lay their eggs. We have recorded experimentally head-started turtles nesting on Padre Island National Seashore, USA, and the same turtles at Rancho Nuevo in Mexico during the same nesting season. Apparently, the experimentally imprinted head-started turtles were able to navigate to Padre island National Seashore and were also able to socially facilitate with wild ridleys returning to the Tamaulipas coastline's historic nesting grounds.

Normally, the Kemp's ridley or "tortuga lora", as it's called in Spanish, begins nesting around the second week in April, but starting in 1998, they began nesting in March. Mild winters with unseasonably warm water temperatures may facilitate this reproductive readiness and subsequent egg laying by the turtles.

Kemp's ridley turtles will return to nearly the same spot on the beach where they nested in previous seasons, however, if they are disturbed, they possess the behavioral "plasticity" to move several kilometers up or down the beach to a new nest site.

This season, the first Kemp's ridley nests were recorded on March 17 in the Rancho Nuevo and Tepehuajes Field Stations.

In past years we were unaware that a few “loras” will and do nest at night even though the norm for this species is diurnal (or daytime) nesting. Our first beach patrol or “recorrido” as it is called in Spanish, began at 8:00 am C.S.T. for years and years and that was early enough to find the first nesting turtles of the day. Two years ago, our first beach patrol began encountering crawls (tracks) and nests which were apparently from late in the afternoon of the previous day or perhaps from the night time or early morning hours. The first “recorrido” kept being moved to an earlier and earlier hour and eventually turtles were found nesting at 5:30 am during the cover of darkness. Needless to say, this has caused us to readjust our thinking and our patrol schedules. It is critical to our effort to see as many turtles as is humanly possible given the constraints of manpower and equipment. We have to actually encounter the turtles in order to check for tags or tag returns, or to tag the turtles, and to determine internesting intervals. This tagging information also helps us to know how often the individual turtle nests each season, the fertility rate of the eggs, and an entire suite of other data.

The scope of the project this year was essentially the same as in preceding seasons. The United States field assistance group, the INP and Tamaulipas' State Government crews, under the supervision of trained sea turtle biologists aided in beach patrols ("recorridos"), tagging turtles with monel metal tags in the trailing edge of the left foreflipper, and passive integrated transponder ("PIT") tags were also injected into the muscle tissue through the dorsal side of the foreflipper. 990 monel metal tags were applied on nesting females and 776 specimens were tagged with "PIT" tags. Relevant data were recorded; subsequently, most of the egg clutches were translocated to facsimile nests within protective corrals.

This season, 6,178 nests were protected, 5,842 in corral, 134 in Styrofoam boxes and 202 *in situ* for a total of 589,644 protected eggs. Up to August 20, 391,578 hatchlings have been released from the coasts of Tamaulipas and Veracruz into the Gulf of Mexico. For detailed data, see the summary data analysis.

INFRASTRUCTURE REPORT FOR GRANT # NA96FE0306 - 1999

The State Government of Tamaulipas, through its Secretaría de Desarrollo Urbano y Ecología, Dirección General de Recursos Naturales y Medio Ambiente, has officially secured access to a location for the new barracks and an ecoeducation sea turtle center at La Pesca, in the municipality of Soto La Marina, Tamaulipas, Mexico. To date:

Architectural design, conceptualization and model construction (Figures 4-6):	
Fifteen hundred dollars	**$1,500.00**
Initial construction phase which has already begun:	
Nineteen thousand dollars	**$19,000.00**
A four-wheel drive Jeep has been purchased for use on beach patrols and the translocation of eggs to the incubation corrals at a cost of :	
Eleven thousand dollars	**$11,000.00**
Total:	
Thirty one thousand, five hundred dollars	**$31,500.00**

This leaves a balance of forty one thousand five hundred dollars ($41,500.00) remaining for completion of the infrastructure improvements and program coordination for the work under grant # NA96FE0306.

We request an extension to December 31, 2000 for the completion of this work.

Work on the Altamira, Tamaulipas barracks and an ecoeducation sea turtle center will commence in the Spring of the year 2000.

The thrust of these two facilities is to educate tourists in areas of direct contact with sea turtles in order to diminish negative impacts. In addition, creating highly educational displays and activities in these locations should divert human visitation from the epicenter of Kemp's ridley nesting sites at Rancho Nuevo, Tepehuajes and Barra del Tordo.